

SECRET

CHAL - 0045

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2 May 1958

MEMORANDUM TO: Deputy Project Director

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SUBJECT :

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1. The following information was elicited from this date. As pertains to the J-57/P31 Engine:

	<u>T.O.</u>	<u>35,000</u>	<u>70,000</u>
A. Specific Fuel Consumption	1.06	.98	1.13
B. Mass Air Flow	234#/sec	75#/sec	13#/sec
C. Thrust	10,500	3750	685
D. Compression Ratio	13:1	13:1	13:1
E. Engine Basic Weight	3700	3700	3700
F. Fuel Consumption and Thrust at Designated Altitudes:			

(1) Sea Level

- a. ^{11,500}~~10,500~~ Thrust
- b. 1.06 Fuel Consumption

(2) 15,000 Feet

- a. 7,000 Thrust
- b. 1.015 Fuel Consumption

(3) 25,000 Feet

- a. 5350 Thrust
- b. 1.00 Fuel Consumption

(4) 35,000 Feet

- a. 3750 Thrust
- b. .98 Fuel Consumption

G. Turbine Inlet Temperature

- (1) Take Off - 1670°F
- (2) 35,000 Feet - 1670°F
- (3) 70,000 Feet - 1670°F

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